SANTA CRUZ BIOTECHNOLOGY, INC.

δ Tubulin (A-1): sc-25259

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Tubulin is a major cytoskeleton component that has five distinct forms, designated α, β, γ, δ and ε Tubulin. α and β Tubulins form heterodimers which multimerize to form a microtubule filament. Multiple β Tubulin isoforms (β1, β2, β3, β4, β5, β6 and β8) have been characterized and are expressed in mammalian tissues. β1 and β4 are present throughout the cytosol, β2 is present in the nuclei and nucleoplasm, and β3 is a neuron-specific cytoskeletal protein. γ Tubulin forms the gammasome, which is required for nucleating microtubule filaments at the centrosome. Both δ Tubulin and ε Tubulin are associated with the centrosome. δ Tubulin is a homolog of the *Chlamydomonas* δ Tubulin Uni3 and is found in association with the centrioles, whereas ε Tubulin localizes to the pericentriolar material. ε Tubulin exhibits a cell-cycle-specific pattern of localization, first associating with only the older of the centrosomes in a newly duplicated pair and later associating with both centrosomes.

CHROMOSOMAL LOCATION

Genetic locus: TUBD1 (human) mapping to 17q23.1; Tubd1 (mouse) mapping to 11 C.

SOURCE

δ Tubulin (A-1) is a mouse monoclonal antibody raised against amino acids 154-450 of δ Tubulin of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

δ Tubulin (A-1) is available conjugated to agarose (sc-25259 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-25259 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-25259 PE), fluorescein (sc-25259 FITC), Alexa Fluor® 488 (sc-25259 AF488), Alexa Fluor® 546 (sc-25259 AF546), Alexa Fluor® 594 (sc-25259 AF594) or Alexa Fluor® 647 (sc-25259 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-25259 AF680) or Alexa Fluor® 790 (sc-25259 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

δ Tubulin (A-1) is recommended for detection of δ Tubulin of mouse, rat and human origin by Western Blotting (starting dilution 1:500, dilution range 1:500-1:5,000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

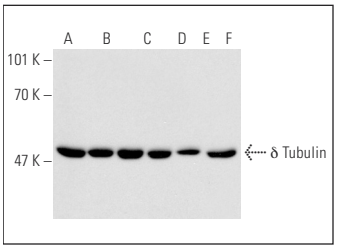
Suitable for use as control antibody for δ Tubulin siRNA (h): sc-35157, δ Tubulin siRNA (m): sc-35158, δ Tubulin shRNA Plasmid (h): sc-35157-SH, δ Tubulin shRNA Plasmid (m): sc-35158-SH, δ Tubulin shRNA (h) Lentiviral Particles: sc-35157-V and δ Tubulin shRNA (m) Lentiviral Particles: sc-35158-V.

Molecular Weight of δ Tubulin: 51 kDa.

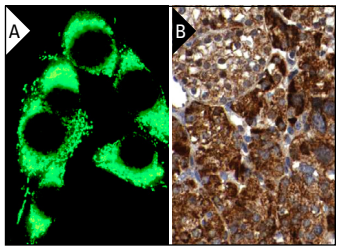
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



δ Tubulin (A-1): sc-25259. Western blot analysis of δ Tubulin expression in HeLa (**A**), NIH/3T3 (**B**), SK-BR-3 (**C**), U266 (**D**), MCF7 (**E**) and K-562 (**F**) whole cell lysates.



δ Tubulin (A-1): sc-25259. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human parathyroid tissue showing cytoplasmic staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Rebacz, B., et al. 2007. Identification of griseofulvin as an inhibitor of centrosomal clustering in a phenotype-based screen. Cancer Res. 67: 6342-6350.
2. Shan, J., et al. 2013. Activation of the amino acid response modulates lineage specification during differentiation of murine embryonic stem cells. Am. J. Physiol. Endocrinol. Metab. 305: E325-E335.
3. Prati, B., et al. 2019. Three Prime Repair Exonuclease 1 (TREX1) expression correlates with cervical cancer cells growth *in vitro* and disease progression *in vivo*. Sci. Rep. 9: 351.
4. Abjaude, W., et al. 2022. ATM pathway is essential for HPV-positive human cervical cancer-derived cell lines viability and proliferation. Pathogens 11: 637.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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